

Appendix “A”



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Mooretown, Ontario, Canada N0N 1M0
Telephone: (519) 862-2961

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CERTIFICATE OF ANALYSIS

July 22, 2005

ADVANCED DRAINAGE SYSTEMS INC
WYOMING ST
THORNDIKE, MA
US 01056

NOVA CHEMICALS CORPORATION certifies that the polyethylene product described herein,
meets the requirements of Nova's product specification(s) for such product.

Customer P.O. Number:	84712
Nova Product Designation:	HP-Y353-A HOPPER CAR
Nova Batch Number:	MP50001750
Container Number:	NCIX1141
Product Weight(LB):	192265
Nova Order Number	350462
Delivery Note Number/Item No.	400942853/10
Shipment Date	21-Jul-05
Manufacturing Date	14-Jun-05

THE FOLLOWING TEST RESULTS WERE OBTAINED:

<u>CHARACTERISTIC NAME</u>	<u>UNITS</u>	<u>RESULTS</u>
Melt Index 190/2.16	G/10 MIN	0.28
Density	G/CM3	0.9537
Bulk Density	LB/FT3	36.5
Flow Rate 190/21.6	G/10 MIN	22.1
Melt Flow Ratio 21.6/2.16	RATIO	78.9
Colour Whiteness Index	-	72.6
Colour Yellowness Index	-	-7.1

A handwritten signature in cursive script, appearing to read 'C. Cecile / M. Bradley'.

Quality Representative

CONTACT(S):
LISA HALLAM
1-614-658-0054

FRANK SEYMOUR
1-614-658-0054

PLANT MANAGER
1-413-583-5249

PURAll ADS BPCS 4.0 Production Environment NWM51C63 11/02/05
 Maintain Resin Quality Results Maint TERRYM 09:27:53
 ITEM: 9999J M-294 PELLETS - NCTL PO/LINE: 84712 1
 WHSE: 36 ADS LUDLOW CAR NO: NCIX1141

VENDOR: 1046 NOVA C/O CITIBANK
 ORDERED: 7/13/05 SHIPPED: 7/22/05 LAST RECEIPT: 8/05/05
 QTY ORD: 185000.000 QTY SHPD: 192265.000 QTY RECEIVED: 192265.000

VENDOR TEST RESULTS RETEST? N VENDOR ITEM HPY353A

LOT# MP50001750
 TEST DATE 7/22/05
 DENSITY .9537
 MELT INDEX .2800
 MELT (HLMI) .0000

ADS TEST RESULTS	J084712A	J084712B	J084712CA	J084712CB	AVERAGE
TEST DATE 8/08/05					
DENSITY	.9520	.9520	.9520	.9520	.9520
MELT INDEX	.2600	.2600	.2600	.2600	.2600
MELT (HLMI)	.0000	.0000	.0000	.0000	.0000
LOT STATUS	A Active	A Active	A Active	A Active	

TESTED BY INITIALS: BK SEND TO PLANT? _ LAST PRINTED: 8/08/05

F1=Help F3=Exit F5=Refresh F6=Accept F12=Cancel F20=Notes

Appendix “B”



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Menu



Current
Language
English ▼



Control Panel

Lookup

Product Number

Weight (gm/ft)

Operator

Foreman

Head Tooling Number

Mold Tooling Number

Plant ▼

Date 

Shift ▼

Workstation
Number ▼



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Menu

Control Panel

N-12 Resin

N-12 Process

N-12 Quality

Inline Bell

ProductionLookup

Lot Type	Lot #	%	Supplier	Melt Index	Density	Car #	Melt Flow Ratio
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Regrind %

Current
Language

English



Notes

Current Recipe



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Screw RPM

Back Pressure

Inner Die Gap

Outer Die Gap

FPM Actual

Melt Temp

Pre-Blow PSI

Current
Language

English



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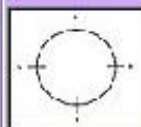
Menu

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Entry Time	Hour Of Shift	Sample ID	Product Number	Sample Wt (gm)	Sample Len (in)	Weight (gm/ft)	Piece Count	Skip Entry
	1		126500201B					<input type="checkbox"/>
	2		126500201B					<input type="checkbox"/>
	3		126500201B					<input type="checkbox"/>
	4		126500201B					<input type="checkbox"/>
	5		126500201B					<input type="checkbox"/>
	6		126500201B					<input type="checkbox"/>
	7		126500201B					<input type="checkbox"/>
	8		126500201B					<input type="checkbox"/>

Current Language

English



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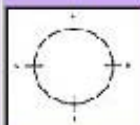
Menu

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Product Number	Hour Of Shift	Crown A	Crown B	Crown C	Crown D	Max Crown Variance	Crown To Crown Variance	
12650020IB	1							
12650020IB	2							
12650020IB	3							
12650020IB	4							
12650020IB	5							
12650020IB	6							
12650020IB	7							
12650020IB	8							

Current
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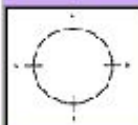
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Product Number	Hour Of Shift	Inner Wall A	Inner Wall B	Inner Wall C	Inner Wall D	Sidewall Left	Sidewall Right	
12650020IB	1							
12650020IB	2							
12650020IB	3							
12650020IB	4							
12650020IB	5							
12650020IB	6							
12650020IB	7							
12650020IB	8							

Current
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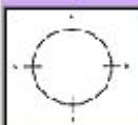
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Product Number	Hour Of Shift	Inside Diameter	Outside Diameter	Interior Roughness	Stripe Width	Pipe Len (in)	
12650020IB	1						
12650020IB	2						
12650020IB	3						
12650020IB	4						
12650020IB	5						
12650020IB	6						
12650020IB	7						
12650020IB	8						

Current
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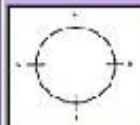
Menu

Control Panel N-12 Resin N-12 Process N-12 Quality Inline Bell ProductionLookup

Product Number	Hour Of Shift	Vent Holes	Inner Wall Weld	Encoding	TUP	Workmanship	Marking	
12650020IB	1							
12650020IB	2							
12650020IB	3							
12650020IB	4							
12650020IB	5							
12650020IB	6							
12650020IB	7							
12650020IB	8							

Current Language

English



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Material Distribution Crown

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Pass/Fail

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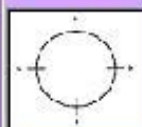
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Product Number	Hour Of Shift	Perforations
12650020IB	1	
12650020IB	2	
12650020IB	3	
12650020IB	4	
12650020IB	5	
12650020IB	6	
12810020IB	7	
12810020IB	8	

Current
Language

English



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Product Number	Hour Of Shift	Bell OD At B	Thickness At B-1	Thickness At B-2	Thickness At B-3	Thickness At B-4	Thickness At B-Avg	Bell Inner Diameter	Spigot OD At A	
12650020IB	1									
12650020IB	2									
12650020IB	3									
12650020IB	4									
12650020IB	5									
12650020IB	6									
12650020IB	7									
12650020IB	8									

Current Language

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Product Number	Hour Of Shift	Min Flare Length	Max Flare Length
12650020IB	1		
12650020IB	2		
12650020IB	3		
12650020IB	4		
12650020IB	5		
12650020IB	6		
12650020IB	7		
12650020IB	8		

Current
Language

English



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Product Number	Hour Of Shift	Vent Weld	Deburring	Liner Trim	
12650020IB	1				
12650020IB	2				
12650020IB	3				
12650020IB	4				
12650020IB	5				
12650020IB	6				
12650020IB	7				
12650020IB	8				

Current
Language

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ADS WIRED PLANT LABORATORY EVALUATION REPORT CONTROL PANEL



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Current
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Version: 2.1.2

Lab Control Panel

Sample ID Lookup

Sample ID

General

Product Number

Weight (gm/ft)

Date Of Mfg

Plant

Head Tooling Number

Mold Tooling Number

Test Date

Tested By

Resin

Process

ADS WIRED PLANT LABORATORY EVALUATION REPORT CORRUGATED PE PIPE



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Menu

 Save Lab Data

 Publish

Current Language
English ▾

 Version: 2.1.2

Lab Control Panel

Sample ID Lookup

SingleWall 8'-24"

Notes

Attribute Test

Weight (gm/ft)

Pitch

Stiff 5 Pct

Stiff 10 %

Inside Diameter

Outer Diameter

Stripe Width

Failure

Perforations

Length Avg Min Max

Width/Diameter

Per Foot

Inlet Area

Material Distribution

	<u>Stripe</u>	<u>90</u>	<u>180</u>	<u>270</u>
Crown	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Valley	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sidewall Left	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sidewall Right	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Crown Var	<input type="text" value="0"/>			
Crown/Crown	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Crown/Crown Var	<input type="text" value="0"/>			

Pass/Fail

Waterspray ☐ Pass ☐ Fail

Engraving ☐ Pass ☐ Fail

Molds Match ☐ Pass ☐ Fail

TUP ☐ Pass ☐ Fail

Flex ☐ Pass ☐ Fail

Workmanship ☐ Pass ☐ Fail

Marking ☐ Pass ☐ Fail

Joint Integrity ☐ Pass ☐ Fail

ESCR ☐ Pass ☐ Fail

Appearance

☐ Waterspray

☐ Corr Damage

☐ Mold Seams

☐ Waterblown

☐ Bullet Drag

☐ Other

ADS WIRED PLANT LABORATORY EVALUATION REPORT SMOOTH INTERIOR CORRUGAED PIPE



THE MOST ADVANCED NAME IN DRAINAGE SYSTEMS



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Menu



Current Language

English



Version: 2.1.2

Lab Control Panel

Sample ID Lookup

N-12

IBBell

Notes

Attribute

Test

Weight (gm/ft)

Stiff 5 Pct

Inside Diameter

Outer Diameter

Roughness

Stripe Width

Failure

Perforations

Length

Width/Diameter

Per Foot

Inlet Area

Material Distribution

Stripe

90

180

270

Crown

Smoothwall

Sidewall Left

Sidewall Right

Crown Var

Crown/Crown

Crown/Crown Var

Valley

Valley Var

Pass/Fail

Molds Match

TUP

Engraving

Encoding

☐ Pass ☐ Fail

☐ Pass ☐ Fail

☐ Pass ☐ Fail

☐ Pass ☐ Fail

Workmanship

Marking

ESCR

Joint Integrity

☐ Pass ☐ Fail

☐ Pass ☐ Fail

☐ Pass ☐ Fail

☐ Pass ☐ Fail